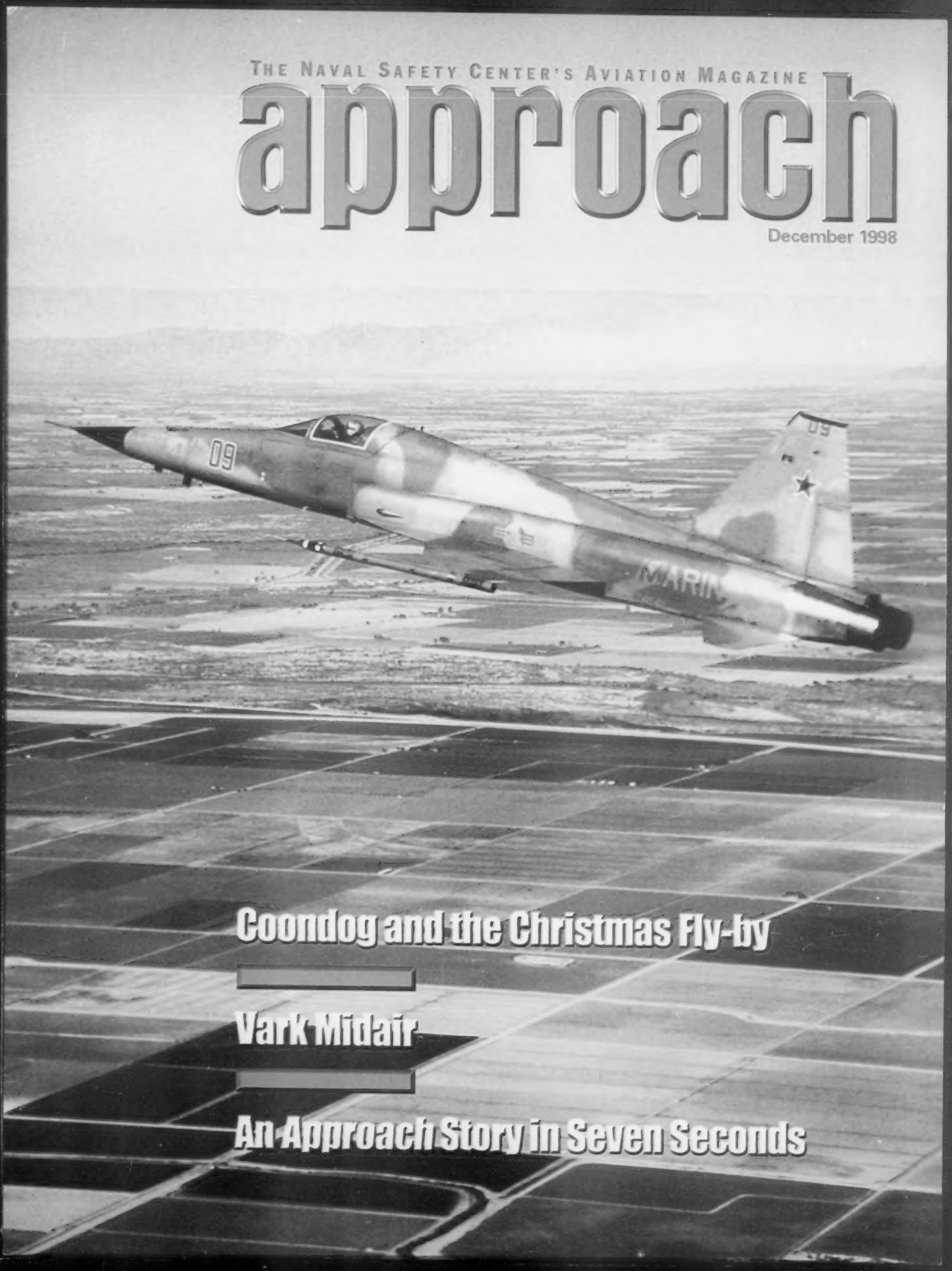
THE NAVAL SAFETY CENTER'S AVIATION MAGAZINE

approach

December 1998



Coondog and the Christmas Fly-by

Vark Midair

An Approach Story in Seven Seconds

approach contents

December 1998
Volume 43, Number 12
The Naval Safety Center's Aviation Magazine

On the cover F-5E of VMFT-401. *Photo by Ted Carlson*

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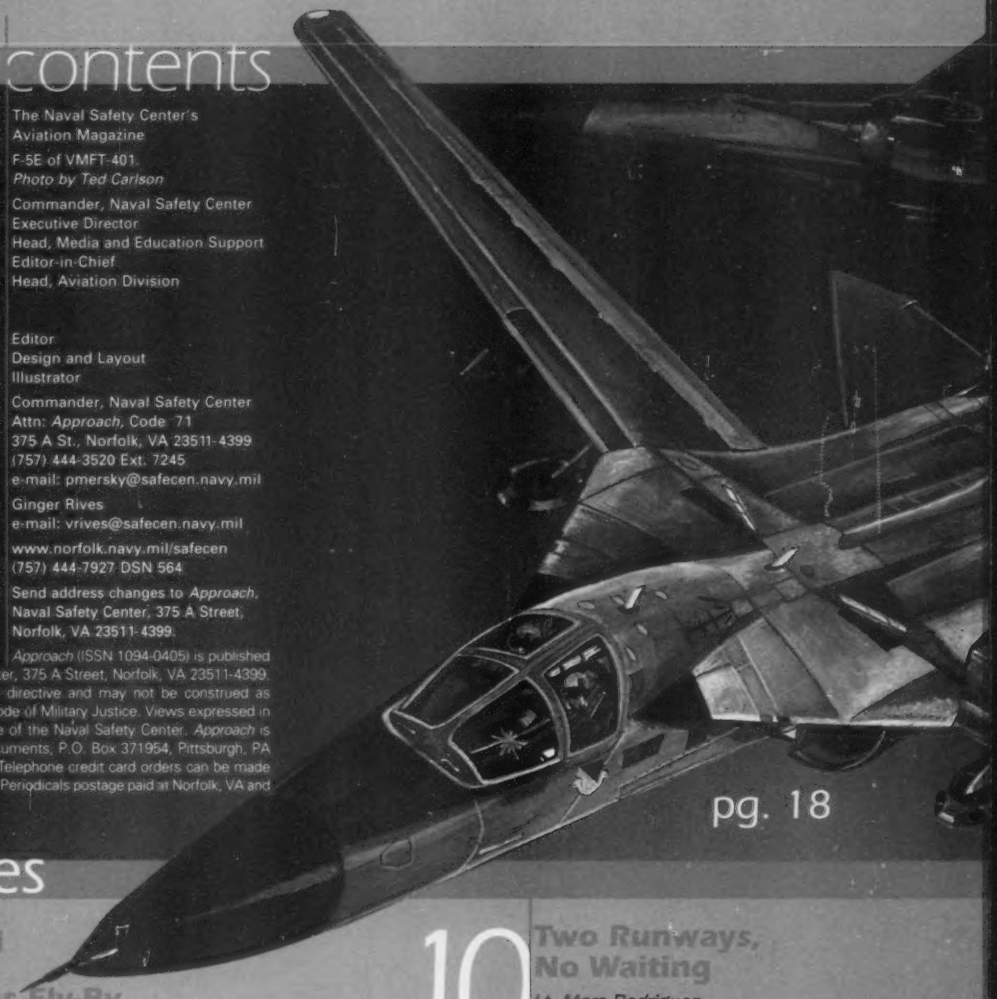

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Coondog and the Christmas Fly-By

by LCdr. Tom Ganse

I HAVE A FRIEND (I'll call him Coondog) who told me a story I thought would make a good article. The story starts while he was at ASO school in Monterey. His safety-programs instructor was explaining a phenomenon peculiar to naval aviators and college fraternities. Apparently, if you break out these individuals from a group, they work as rational, intelligent, socially acceptable people. But when you put them together in a group, their collective IQ takes a nose dive.

Coondog didn't necessarily believe this idea, but it wasn't long before he saw what the instructor had described.

Coondog finished ASO school on a Friday, and, being a dedicated, enthusiastic lieutenant in-zone for O-4, he assumed his duties at 0730 the following Monday. The first day was quiet, but the second day gave him a first-hand lesson on that sinking IQ.

As he stood by his desk, trying to get the day started, another pilot—call sign Blivet—bounded in like a golden retriever that had been penned up for three weeks.

"Hey, Coondog," Blivet said, "Get your stuff. We're headed out to the end of the runway!"

"Huh? Oh, sure." Coondog muttered as he tried to recall anything about a FOD walkdown on the runway. He decided he hadn't seen anything, but his new squadron was just a gung-ho bunch of safety professionals. His job would be easy with that kind of enthusiasm.

Coondog didn't know Blivet well, but when he climbed out of the truck at the end of the runway, he began to suspect that the other pilot was a master of harebrained stunts. There, in the early morning mist, stood the rest of the squadron, outfitted in Santa-Claus caps and jingle-bell earrings.

"Everyone take one of these champagne glasses," Blivet instructed.

"Hey, Blivet," Coondog asked, "what's going on?"

"Oh, nobody told you? Wow! This is gonna be great! We're gonna make a squadron Christmas card." Blivet beamed.

Coondog thought it sounded harmless enough.

"Yeah," Blivet continued, "Turk should be taxiing out any time. Spoke is talking to him on the hand-held."

"Say what?"

"Man, nobody told you anything. We're gonna wear all this Christmas-looking stuff and stand here at the end of the runway holding up these glasses. A petty officer will take the picture as Turk passes overhead. It's really great! The third-class's dad owns a photo studio in Minnesota, so he's probably a really good photographer." Coondog would come to know this as unassailable Blivet logic.

Coondog began thinking.

OK, I'm new in the squadron. I'm just a lieutenant bucking for O-4. So what if this is Turk's last flight. He wouldn't do anything stupid or unsafe. He must have briefed the skipper. The boss must know the whole plan and like it, or he wouldn't be here with us.

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Denial was setting in.

As Coondog described the proceedings, all I could think of was a scene in the movie, "Monty Python and the Holy Grail." It's where two goofy guards are standing in front of a castle and the camera pans across a great field. Then, with a threatening drum roll, John Cleese comes bounding over the distant horizon. The camera swings back to the guards, who stand there, looking at each other quizzically, then back to John Cleese. Back and forth, until suddenly, Cleese appears at the castle entrance, spears the guards with his sword, and charges into the castle. (If you don't know the scene, take off your sea-service ribbon; you've obviously never been on cruise.)

Coondog said they all stood there, grinning like idiots, holding up those cheap plastic glasses, sneaking glances over their shoulders. Spoke took the call: Turk was rolling. They could hear those twin 404s howl from two miles away. Like that drumroll, the sound didn't get louder, or seem like it was closer. People got antsy. Coondog's imagination ran wild.

Great! Turk had to do a high-speed abort, and the long-field gear probably isn't rigged. This'll make a great MIR!

The menacing shape of a screaming Hornet came out of the dawn haze. He was close and closing fast at what didn't look like 200 feet! Then the jet was gone. Santa caps went flying. Gritty soil and dead vegetation filled the air. The champagne glasses and the camera were on the ground, as was the photographer. Heck, the whole squadron was on the ground. They could feel the heat of the Hornet's afterburner plumes.

There was stunned silence, then Blivet snapped everyone back to reality.

"Hey, c'mon everyone. He's setting up for the next pass!"

This craziness went on for 20 minutes and five passes. Coondog's sense of humor was long gone. He considered going up to the CO and ending this nonsense, but he didn't. Anyway, everyone survived.

Coondog went back to his office and closed the door. He sat, ashamed of his inaction. What happened had been wrong. He should have stopped it. The skipper was a reasonable man and would have knocked it off if someone had expressed concern. Worse yet, he could hear the rest of the squadron laughing and celebrating. What should a new guy do? Where was the phone number of his instructor in Monterey?

It finally dawned on him: he would draft an initial mishap report for the CO. The summary line would read:

All squadron officers fatally injured when hit by aircraft during photo shoot.

He went to the skipper's office, pulling the door shut behind him.

"Sir," he started, "they told me in Monterey that I would face some unique and sometimes delicate challenges, but I didn't think it would be as soon as the second day on the job. I've been wrestling with a way to put this, but I guess I'll take my chances and lay it out as I see it."

The CO looked puzzled. Who was this new guy, and why was he being so cryptic?

"Cut to the chase, Coondog," he said with growing impatience.

Coondog gave him the bogus mishap report. He also mentioned a sample headline: "FA-18 Crashes, Kills 24." He saw the CO's frown of impatience become raised eyebrows of disbelief. The message had hit home.

"So what should I do?" the skipper asked.

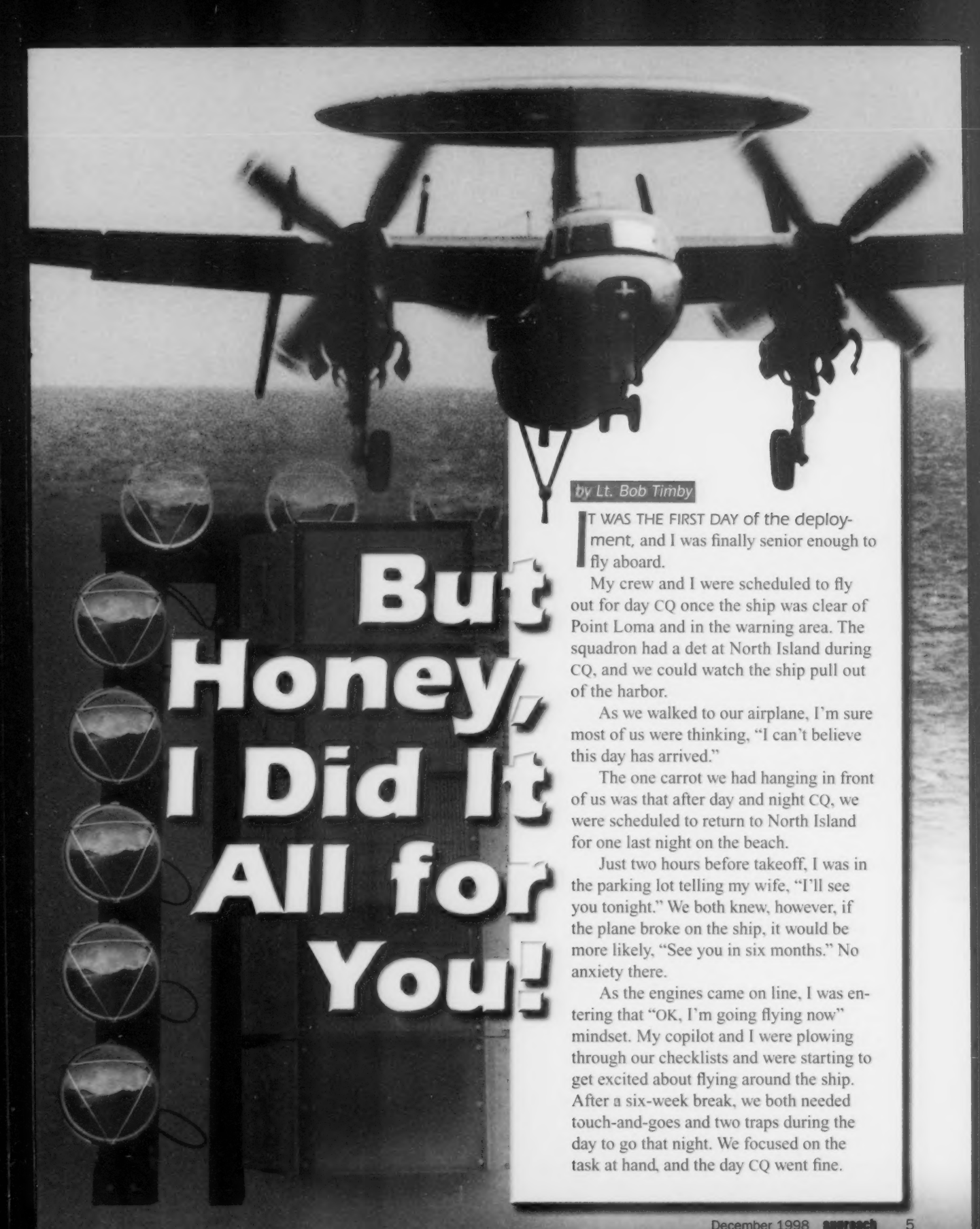
I'm pleased to report this story has a happy ending. It turned out the skipper knew about the planned photo shoot, but he hadn't realized what Turk was going to do.

After a frank discussion with his new ASO, he called an immediate AOM. He explained he still felt comfortable with the shoot, but that he was surprised by the fly-by's intensity. The CO made it clear that his pilots would not fly like that, he did not support Turk's actions, and his squadron would behave like the professionals he knew them to be.

Just in case there was any lingering confusion, Coondog shared this story as an indictment of his inaction, not to judge the command. At any rate, both Blivet and Turk have found employment elsewhere.

LCdr. Ganse flew A-7s and FA-18s in the fleet. He was also a mishap investigator for the Naval Safety Center.

Photo sessions serve a useful purpose in educating the public and portraying naval aviation in a favorable light. When planned, briefed and flown properly, a photo session is a safe and profitable activity. But even with attention to detail, things can go wrong; lives and aircraft can be lost in a split second. Since 1981, there have been five Class A mishaps involving so-called photo shoots. The Navy and Marine Corps have lost five people and eight aircraft.—Ed.



But Honey, I Did It All for You!

by Lt. Bob Timby

IT WAS THE FIRST DAY of the deployment, and I was finally senior enough to fly aboard.

My crew and I were scheduled to fly out for day CQ once the ship was clear of Point Loma and in the warning area. The squadron had a det at North Island during CQ, and we could watch the ship pull out of the harbor.

As we walked to our airplane, I'm sure most of us were thinking, "I can't believe this day has arrived."

The one carrot we had hanging in front of us was that after day and night CQ, we were scheduled to return to North Island for one last night on the beach.

Just two hours before takeoff, I was in the parking lot telling my wife, "I'll see you tonight." We both knew, however, if the plane broke on the ship, it would be more likely, "See you in six months." No anxiety there.

As the engines came on line, I was entering that "OK, I'm going flying now" mindset. My copilot and I were plowing through our checklists and were starting to get excited about flying around the ship. After a six-week break, we both needed touch-and-goes and two traps during the day to go that night. We focused on the task at hand, and the day CQ went fine.

The next thing we knew, we were holding in the night marshal stack with a full bag of gas. The E-2 can hold for hours, but I was hoping we could expedite the whole affair. All we needed was one night trap each, and we were already approaching a 12-hour crew day. The "let's just get the X" attitude was beginning to set in.

After an hour in the stack, marshal finally pushed us. We were high and heavy, so I turned on the fuel dump, then nosed the airplane over.

"Fuel dump's on," I told the crew. The E-2's fuel-dump system does not function very well unless the aircraft is in level flight, so when we leveled off at angels 1.2, we had not lost much gas. We were getting close to mother, inside 10 miles, and closing at 250 KIAS. We still had a lot of fuel to dump, but I knew as soon as we went dirty, our closure rate would decrease rapidly.

Bullseye wasn't giving us any indication yet. Normally, we should have started picking up centerline by this point. Did we have the right channel dialed up? I had my copilot double-check the kneeboard card while I checked the switchology. Just then, CATCC called, saying something about a new heading.

"Say again for Six Oh Two. You were stepped on."

Now CATCC was coming in broken. As we tried to put approach on another radio, we finally broke out CATCC's call for a give-way heading for another aircraft. The "Hummer dance" had started. No surprise. It's the nature of the beast when you fly the E-2 around the boat at night.

We had just steadied up on our new heading when CATCC started giving us vectors back to final bearing. I thought how dark it was. I was developing vertigo as I tried to stay on the instruments. I fell behind the aircraft, overshot the final bearing and struggled to get back as I climbed through the glide slope.

CATCC called, "Six Oh Two, going well above glidepath, report needles."

"Six Oh Two is negative needles," I replied.

"Roger, Six Oh Two, fly the bullseye."

Thanks, CATCC. The E-2's bullseye is indicated on the CDI down by the pilot's right knee. It doesn't make for a real smooth scan, but it's workable.

After flying an ugly bullseye approach, I finally started to break out a ball and managed to get off to a decent start.

CATCC called, "Six Oh Two, three-quarters of a mile, call the ball."

My copilot responded, "Six Oh Two, Hawkeye, uhhh, four point oh."

As I wondered what the h
that, my copilot told me w
we left the fuel dump on.'

As I wondered what the hell kind of a ball call that was, my copilot told me with disappointment, "Bob, we left the fuel dump on."

After blurting out a couple of choice expletives, I looked in disbelief at the fuel-dump caution light, then reached up and turned off the switch. I looked down at the fuel gauge to see how bad the damage was. It was pretty bad: 3. 1.

All the while I was supposed to be scanning meatball, lineup, and angle of attack. By the time I looked up, the ball was turning red.

The LSO became more insistent with each call. "Power, easy with it, bolter, bolter!"

We leveled off at 1,200 feet and turned downwind. I was trying to compose myself and analyze the grand situation we were in. I tried to convince myself that it really wasn't that bad. Hold down was 2.5, bingo to North Island was 1.7, and the weather was CAVU. We only needed two traps. We could finish and get back to the beach without hot-pumping. Besides, if we did hot-pump, all of our squadronmates would know we had been knuckleheads and had dumped too much. We were already "fudging"(euphemism for "lying") our fuel state, and if we didn't paint ourselves into a corner, we could come out of it with our egos intact. We'd be back on the beach for that last night at home before you could say, "Low fuel lights." I discussed it with the crew, and they were just as eager to RTB as I was.

CATCC gave us a short hook, and I regrouped to fly a sweet pass. Straight to the cat and before we knew it, we were airborne. I was hoping CATCC would just give us angels 2 for a seat swap, hook us back in for our last trap, and send us home. No such luck.

"Six Oh Two, climb to angels five. Passing angels two, check in button sixteen."

We checked in with marshal, who responded, "Report crew swap complete, update state." As aircraft commander, I kept reminding the crew that if anyone felt uncomfortable, we would confess and get some gas on deck, but get-home-itis was rampant. We were trying to

ell kind of a ball call was
ith disappointment, "Bob,

gradually work our reported fuel state down toward our actual fuel state, but anyone who was paying close attention could have figured it out.

I looked down at the fuel gauge, 2.8.

"Marshal, Six Oh Two is state three point four." They pushed us as soon as we were done with our seat swap, and I began crunching the numbers. If we didn't get aboard this pass, we would definitely have to hot pump before going back home. We'd better get a quick check of North Island ATIS—still CAVU. Yes!

My pilot flew a nice pass and got aboard first time. It was now decision time. Our fuel state was 2.5, right at hold down. But we were a shot to the beach, and we didn't need to get back aboard. Hold down didn't apply to us, right? It's amazing what you can convince yourself of when you have an agenda to meet.

The most dangerous part of get-home-itis is that it clouds your judgment, pushing you into situations you normally would not accept. So why didn't we just hot pump? Besides having to come clean about our fuel state, we would have to tell the Boss why our E-2 was clobbering his flight deck during night CQ. Bingo was 1.7, and we had 2.5. We were going flying.

We taxied toward the cat, but got sidelined as they launched other players first. As the yellowshirt finally taxied us across the JBD, I started to second-guess my decision. We cleaned up as I called, "Six Oh Two airborne."

CATCC replied, "Roger, level angels twelve, left to the downwind heading one three zero." I thought, "Oh great, they are trying to shove us back into the pattern."

I informed CATCC, "Approach, Six Oh Two, I show us complete and a divert."

Then I recognized the Boss' voice. "Six Oh Two, we'll give you one more if you have the gas for it."

In my most respectful tone, I replied, "Sir, Six Oh Two would rather head to North Island."

"Six Oh Two," the Boss came back, "what's your state?"

Again, it was decision time. I thought, "If I come clean and give our true state, he will probably let us RTB. If I don't, we are going to get another pass, and we'll definitely have to hot pump." Since getting home ASAP was still our priority, we confessed. "Six Oh Two is state two point three." The Boss responded with disgust in his voice, "Roger, you're cleared to divert, switch departure."

We checked in with departure, but since we had already started our left turn to the downwind, they started vectoring us to the southwest and kept us low to get us clear of the CQ box pattern. This was the last thing we wanted to do. North Island was to the northeast, and we needed to get up to altitude. We were low on gas and going 180 degrees in the wrong direction, headed toward nothing but ocean.

What should I do now? Declare min fuels? Declare emergency fuel? Was I regretting my decision now? You bet I was.

Finally, after what seemed like an eternity, we were cleared to climb and proceed direct North Island. We immediately assumed bingo profile, and were slightly ahead of the bingo ladder. We landed at North Island with one steady low-fuel light, the other one blinking, and 1.4 on the gauge. I know other pilots have landed with less fuel, but not me. I declared min fuel with SoCal approach but never used the "E" word. It was late and quiet, and the controller gave us whatever we asked for, but that may not be the case next time. That was a level of discomfort I don't care to experience again.

Everything turned out OK, but what if something had happened, such as an unsafe gear on final at North Island? Would we have had enough fuel to troubleshoot, or would we have been looking at a forced landing with one main gear hung up? Or worse: we take that last approach at the ship and get one main hung up on final. We are below dirty bingo and certainly can't refuel. Unlikely? Sure, but less likely events have led to catastrophe.

All of this was avoidable. Better crew coordination would have kept us from dumping too much fuel, and better judgment would have dictated being honest about our fuel state. As for our egos, well, after a pointed discussion with the skipper, and some good-natured ribbing from the rest of the crew, it would be accurate to say ours were somewhat deflated.

I certainly was glad to get home in one piece that night. I told my wife the story and her response was, "What were you thinking?"

I tried to score some points with her by saying, "Hey, I just wanted to get home as soon as possible to see you."

She replied, "Yeah, well, next time, do me a favor and get some more fuel."

Lt. Timby flies with VAW-116.

Welcome Back to th

by LCdr. Walter Schnell

AFTER CROSSING 11 TIME ZONES ON A 40-hour military charter, I caught the COD to the ship, which was preparing for a port call. That was fine with me because it would give me time to get back in the swing of cruise life and complete a thorough job turnover. I was fresh from a six-week stint at safety school at Monterey and a cat II program at the FRS.

Things began heating up, and the port call was canceled. Instead, we took two no-fly days to groom jets. Aircrew used the time to train and plan missions. Meanwhile, I took my squadron NATOPS check-in tests and got my gear ready. By the way, customs officers don't appreciate finding a survival knife in checked luggage.

Finally on the flight schedule, I was assigned as copilot for a recovery-tanker mission. We stood a three-hour Alert 15 before our launch, so we had plenty of time after a thorough brief to discuss flight specifics and local operating procedures. We walked early and were turning on cat 3, 20 minutes before our launch time. There happened to be a media junket aboard, and just before our launch, a safety petty officer had to pull a cameraman and his tripod back behind the foul line.

I rogered a 45K board, and we headed into marginal, case I, Gulf goo. It was a good shot, and I was thinking how great this job was. Then, at the end of the stroke, we had a flickering MAD-boom caution light, followed by loss of ICS and radios.

We finished our clearing turn and flew the jet until we were seven miles upwind, where we climbed to a clear area. There was a broken layer at 6,000 feet, so we climbed to 5,000 feet to remain VMC. I squawked 7600. There was no tanker overhead to join.

In the S-3, you have to unstrap to reach the circuit breakers. I was going to safe the seats and unstrap when we saw an Iranian Friendship 27 maritime-patrol aircraft inside 10 miles. I had just grabbed the camera to snap some photos when the No. 1 engine-fire lights lit up.

We coordinated the boldface NATOPS procedures. I guarded the throttle on the good engine while the pilot pulled the No. 1 throttle to idle, then secured it. We followed with similar procedures for securing the fire pull-handle and ignition. I changed our squawk from 7600 to 7700 and broke out the PCL, yelling the procedures above the single-engine noise.

After stabilizing with no secondary fire indications and the APU running, we completed NATOPS, which said to land as soon as practical. Our SOP was to trap on the next recovery.

I decided to try bringing the ICS and radios back on line. To reach the circuit breakers, I had to unstrap. When I couldn't reset the circuit breakers, I strapped back in, armed the seats, and watched the deck for a recovery window. Then another S-3 joined on us. I was squawking mode 1 HEFOE, code 5 for engine difficulty as it says in CV NATOPS. Our wingman didn't realize we were single engine, and tried to join at 250 knots while we were at 200.

As he overshot, we cut across his orbit and joined on him. We had the hook down, and the ship soon had a ready deck. Our lead set us up for a straight-in as we had trained at the FRS. We finished our checklists and discussed aircraft-handling techniques and procedures for single-engine waveoffs. We dumped down to improve our single-engine climb rate and performance.

e Fleet!

Sure enough, we were flat, and the LSOs waved us off on the first look. We took it around and set up for another pass. Our wingman was hawking us, so we followed him around for another pass. We recovered on the next try and were towed out of the landing area. We had the wings folded from outside the cockpit using the backup hydraulic pump.

I never tried my PRC-90, because I was busy backing up the pilot. In the past, I had tried using the PRC inside the aircraft without success. It might have worked and reduced some of the confusion.

Postflight revealed that the radios in the aft external bay had unseated during the cat shot and that a faulty valve was leaking hot engine-bleed air.

When you join on an aircraft squawking 7700, he may not be at the speed you expect. After overshooting us, our wingman used his FLIR to confirm we were single-engine.

My first flight with my squadron and my first from a CVN in two and a half years was certainly memorable, mostly for reaffirming the importance of thorough training. A good squadron check-in procedure allowed me to adjust and be ready for my flight. I felt prepared because of good cat II training in the FRS. No kidding, it was just like an EP trainer (except for the Iranian aircraft).

LCdr. Schnell flies with VS-33.

Two Runways, No Waiting

by Lt. Marc Rodriguez

WHEN I THINK BACK ON THE incident, I can see the report, describing domino after domino leading up to the mishap. It was just a training flight, but it could have been my last.

I was about halfway through the training syllabus in the USAF T-1 program en route to Tinker AFB to fly the E-6A Mercury. At this point, most of our flights were "out and ins." This flight was no different. It was a night flight with my on-wing and student partner. We were supposed to fly to Peterson AFB, Colorado, and return to Reese AFB, Texas. We planned to depart Reese at 1800, arrive in Colorado at 2000, eat dinner, and then return to Reese by 2330.

For the first leg, my partner was in the left seat, the instructor in the right, and I occupied the jump seat (typical positions for these events).

The flight to Colorado was uneventful. We landed at 2010, and everything was going as planned, until we checked in to Peterson's base ops before departing for chow.

The squadron had left a message for us to call our flight leader when we arrived. They had said because of a scheduling mix-up, we had to hustle back to Reese ASAP. They wanted us back at the squadron by 2200. After a good 10 minutes of arguing, my instructor eventually gave in and agreed to return to base by 2230. While this was not impossible, we would have to rush. Things went downhill rapidly.

While the contract personnel were refueling the jet, we ran to the flight kitchen and wolfed down some food. We figured we could make it back to home base as long as we got off the deck by 2100.

After dinner, we ran back to base ops, checked weather, and whipped out a quick flight plan. It was 2040. No sweat, we figured.

When we arrived at the plane, we saw, to our disappointment, that the transient line still had not finished refueling the plane. We felt that we had to rush home for some major reason, although it was just a training flight, not a life or death situation.

Finally, the refueling was complete. We started engines in record time. I was now in the left seat and my partner in the jump seat. The instructor, in the right, eagerly copied our clearance. My partner loaded the flight plan in the FMS as I copied ATIS and received clearance to taxi to runway 17L (Peterson AFB has two other runways, 17R and 12, which share an approach end). We had never been to Peterson at night, and we all overlooked this small but very important fact.

We approached the hold-short for 17R and noted the time—2120. Maybe we could still make it. The student in the jump seat called tower for takeoff. They said there was traffic on final and asked if we could accept a "no delay" departure. Of course we could. We were in a hurry, right?

We taxied onto what we thought was runway 17R, finished the checklists, entered a new squawk, double-checked our departure frequency, and took off.

As soon as the gear was up, I glanced down at the EHSI to verify "Runway heading to nine thousand feet, radar vectors to assigned route" (the SID out of Peterson AFB).

Continued on pg. 28

An Appro
in Seven

At three miles, the sh
with the pallets and g
four," for hover picku

PHAN Mahaya Jordan

by Lt. Douglas J. Siemonsma

I'M ONE OF THE GUYS who used to say, "I'll never have anything to write for *Approach*." Seven seconds changed my mind.

A 700-foot overcast layer with visibility ranging from two to five miles in intermittent light rain greeted our H-46 crew as we began a routine battle-group mission. After transferring the first passengers to a small-boy and three vertrep loads, we pressed on to the second ship.

"Pitch two, roll four" was the call from the next tower, parameters well within limits. We moved two loads to that ship.

While coordinating our next overhead, tower called and said they had the retrograde ready for pickup. Simultaneously, the ship scheduled for our next hit called with a green deck. Not having the minimum material required for a retro lift and not wanting to keep the next ship waiting before we hit the carrier, we decided to pick up the retro through the hell hole in the back of the helicopter.

pach Story
Seconds

ip reported the retro ready gave us, "Pitch two, roll o.

We asked the ship to give us only the pendants and legs. They rogered and cleared us for the pickup.

At three miles, the ship reported the retro ready with the pallets and gave us, "Pitch two, roll four," for hover pickup. Our crew chief reminded us that the pallets wouldn't fit through the hole. No problem. Call the ship and tell them to take out the pallets. Should be done in three minutes. Wrong! It would take them 10 minutes. We reviewed our options, discussing which would best allow us to make our subsequent overheads. We decided to land and load the retro through the ramp.

The ship cleared us for landing at "Pitch two, roll four." At a mile out, we decided to take chocks only. Tower concurred. The pilot not at the controls (PNAC) gave the LSE the chocks-only signal, which, according to the book, means "chocks and/or chains," as we later found out. We had worked our home deck with one signal for chocks and a different signal for chains. We were, therefore, accustomed to that interpretation of those signals. This ship was used to working with H-60s, which implies both chocks and chains.

The chain runners did a stellar job getting all four chains locked down and tight, but that's when the problems started. As the ship rolled to the right, the PNAC gave a breakdown signal to the LSE, and I made a radio call to get the chains off, as we had originally requested. By the time the ship reversed its roll, the LSE had interpreted the breakdown signal and relayed it to the runners. The chock-and-chain runners unlocked the chains, but did not get them all the way off. The aircraft began sliding to the left. The PNAC realized we were moving and began to give signals to chain us again when the crew chief called, "Hey, check this out. The right mainmount is about a foot off the deck!"

I glanced at the attitude gyro before the ship began its roll to the right—it read 12 degrees! (The H-46's dynamic tip-over angle is 20 degrees.)

As the ship rolled through center, I saw everyone clearing the deck. It continued to the left with our helicopter sliding in the same direction.

As the ship rolled level, a million things flashed through my mind. The ship continued its roll, and I felt the aircraft slide right until the attached chains caught and stabilized the aircraft, with the nose now to the right of centerline. The crewmen asked what was happening while the PNAC desperately signaled to get the chains locked down.

The deck then began its final roll to the left. As the ship rolled through center, I saw everyone clearing the deck. It continued to the left, with our helicopter sliding in the same direction. The right chains caught and stopped the rear of the aircraft from sliding off the deck. I was relieved until I saw the nose continue left through centerline. I remembered the back cover of *Approach* showing an H-46 hanging inverted from the stern of a ship. I was almost there.

Sliding around the deck was becoming unbearable at that point. I tried our last option—to get airborne. At first, I pulled a little collective that brought us into a one-foot hover. At least we weren't sliding anymore. Suddenly, the rolling ship jerked our attached aircraft to the right. Feeling constrained and overloaded by trying to keep the blades from hitting the superstructure, I pulled an armpit of collective and hoped for the best. I got it. The aircraft broke three chains. Thank goodness not one chain runner had secured the chains to the shackles, or we would have tipped over.

The next thing I saw were the exhaust stacks and the bow. As we climbed rapidly through 200 feet, the PNAC recommended that we get some airspeed. I transitioned to 70 knots and passed the controls. After spending a couple of minutes checking the aircraft, our crew and the ship, we went home. We hot-seated with another crew, who finished the day's log runs.

Still shaken by the experience, we debriefed. We agreed it was good we were able to talk about it, but felt we had effectively communicated as a crew. We had agreed to pick up the retro before continuing with the mission. We had agreed that landing with only chocks would be acceptable, but we hadn't discussed our individual responsibilities. None of us even remotely considered the possibility that there could be a misunderstanding between us and the tower (we had asked for only chocks and been told that's what we would get). Tower had given us inaccurate pitch-and-roll conditions, and we hadn't analyzed those conditions properly. Based on a previous landing on a ship of the same class the same day, our experience told us "pitch two, roll four" was acceptable. We concluded that aircrew coordination extends outside the aircraft, including all other personnel involved with aircraft controlling and handling.

We next discussed mission analysis. Had we really needed to pick up the retro? Were we in such a hurry that we couldn't afford the extra time to take chains as well? Could we have picked up the retro at a later time or another day? We hadn't thought so at the time. Retrograde material for transport is never worth losing an aircrew and aircraft. We believe it should have waited for the next time. We were operating within the battle group and would soon see them again.

Looking back, I feel situational awareness played the biggest role in the events of that day. From the moment we landed to the moment we transitioned to forward flight, not one person in our crew was fully aware of the situation at hand; it was seven seconds of pure confusion and chaos.

Lt. Siemonsma flies with HC-11.

Tighten muscles, take a go
say "Hoo...k" and hold

Maintain a heal
eating right, drinking plen
your running program

UNITED STATES
Readiness Through Safety
NAVAL SAFETY CENTER

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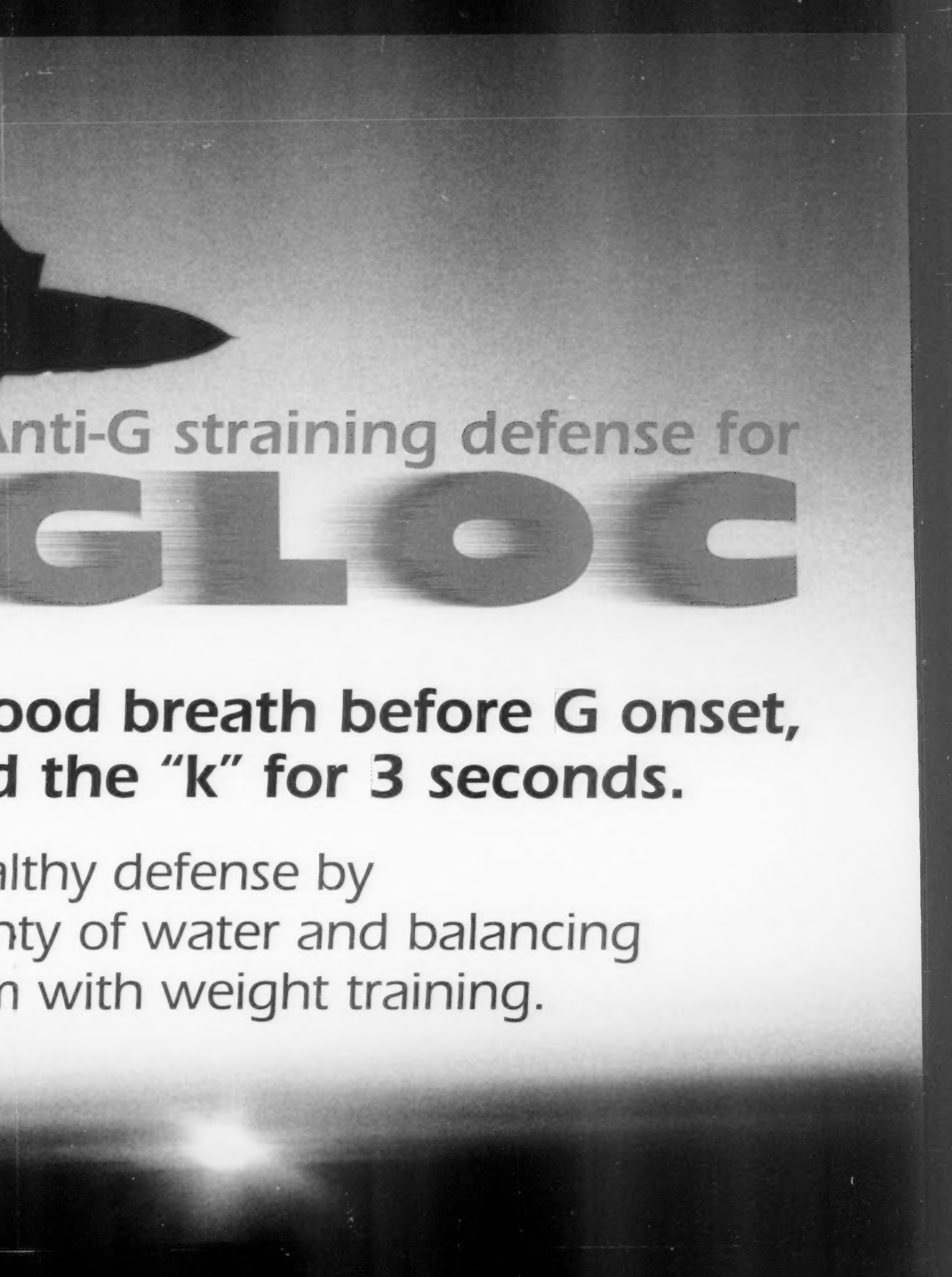
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Milestones

Class A mishap-free flight hours

Command	Date	Hours	Years
HMH-466	03/23/98	36,000	13
HMLA-169	07/01/98	30,000	6
VFA-147	07/12/98	32,000	7
HMT-204	08/03/98	90,000	18
HSL-43	08/10/98	50,000	8
VMFA-142	08/15/98	55,000	20
HMLA-773	08/21/98	20,000	7
HMLA-775A	09/24/98	40,000	15
VAQ-140	10/01/98	21,000	13
VAW-125	10/02/98	59,200	30
VAQ-209	10/05/98	21,390	21
HSL-45	10/05/98	63,000	8.5
HSL-51	10/05/98	40,000	7
FMRF Barking Sands	10/05/98	52,504	27
HS-11	10/09/98	24,000	7
VP-9	10/27/98	126,114	20
VAQ-136	11/19/98	19,100	11

Class A Mishaps

The following Navy and Marine Corps Class A flight and flight-related mishaps occurred since 1 September.

Aircraft	Date	Command	Fatalities
FA-18C	09/16/98	VFA-83	0
A Hornet crashed into the water during a strafing run. Pilot ejected.			
UH-1N	09/16/98	HMLA-267	4
An Iroquois crashed into the water while conducting DLQs.			
FA/18C	09/25/98	VFA-14	0
A Hornet crashed into the sea. Pilot ejected.			
HH-60H	09/26/98	VX-1	2
A Seahawk crashed during an overland SAR mission.			
EA-6B	11/08/98	VAQ-130	4
A Prowler on a waveoff struck a VS-22 Viking on deck resulting in a flight-deck fire.			
CH-46D	11/19/98	HC-8	2
A Sea Knight lost an engine during VERTREP and ditched at sea.			

Class A Flight Mishap Rate

	FY99* thru 11/30/98		FY98	
	No.	Rate	No.	Rate
Navy/Marine	2	0.86	36	2.39
All Navy	2	1.09	27	2.35
All Marine	0	0.00	9	2.52
NAVAIRLANT	1	2.04	12	3.86
NAVAIRPAC	1	2.00	7	2.17
MARFORLANT	0	0.00	3	2.55
MARFORPAC	0	0.00	6	3.58
NATRACOM	0	0.00	5	1.40
NAVAIRES	0	0.00	0	0.00
4th MAW	0	0.00	0	0.00
NAVAIRSYSCOM	0	0.00	2	6.18
NAVSTKWARCEN	0	0.00	1	12.42

*FY99 data subject to change.

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(757) 444-3520 ext. 7257 (DSN 564)

Tear out this insert!
Post this newsletter until it's old news.

POP-UP

New Low-Profile Flotation Collar Introduced to Fleet

LPU-33/P
Life Preserver, Packed

Front View Back View

A new personal-flotation collar will soon have replaced the old LPU-23/P on the aircrew survival vest. The new horseshoe-shaped collar is lightweight and small. Fashioned after the Air Force's LPU, the Navy model has several features that were adapted for its maritime mission.

The most striking change is the removal of the lower lobes. The beaded handles used to activate the LPU are now under the collar.

On the old LPUs, the air bladder would often come out of the back of the collar when the velcro gave way; this problem has been solved. The new collar uses a nylon zipper to encase the flotation device.

The collar contains two separate horseshoe-shaped air bladders, which give the LPU redundancy if one of the bladders is damaged. The TACAIR version and the manually activated version (used in helos and aircraft without ejection seats) look very similar. The TACAIR unit

Air Wing

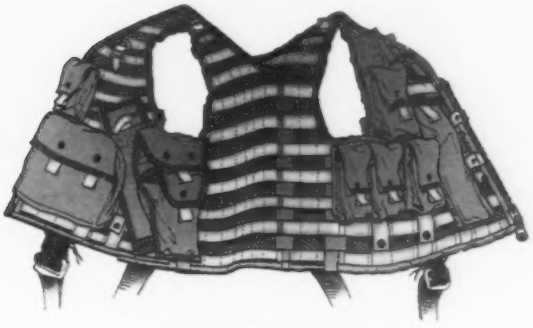
has a black zipper, a warning label on the underside, and the lower lobes are a little larger than the other model to accommodate the FLU-8. There are still oral inflation tubes for each air bladder.

The new low-profile collars, LPU-33/P (TACAIR) and LPU-34/P (Helo) are already out in the fleet in some communities on each coast. During tests, some aviators found it harder to swim and board the raft, so be sure to make use of all training. Post-ejection procedures, i.e., IROK, haven't changed. To date, no one has had occasion to use this system in the real world, so feedback is limited. The new units will soon be incorporated into all initial and refresher water-survival training.

For further information, contact your nearest physiology unit.

New Survival Vest Now Available

CMU-33/P22P-18(V)
Survival Vest, Type 1



Exterior

A better fitting, more adaptable survival vest is replacing the SV-2. The Aircrew Integrated Recovery Survival Armor Vest and Equipment (AIRSAVE) has three parts: a survival vest, soft body armor, and hard body armor. The survival vest is made of a nylon-mesh fabric, which is fire resistant. One size fits all, but the AIRSAVE has three adjustment points to provide a snug fit for every aircrew, something the SV-2 never afforded. The new vest is also extremely flexible, and can be adapted for different environments and missions using modular survival-item pockets.

Each community can develop its own standard model of the vest incorporating features important to their mission (e.g., a pocket for the SRU-40/P Helicopter Aircrew Breathing Device [HABD] bottle). The vest can also be adjusted so Chemical Biological Radiation (CBR) gear, antiexposure suits or body armor can be worn under it. The AIRSAVE survival vest (CMU-33/P22P-18) fits snugly and provides essential support for the new LPU-33/P or LPU-34/P, the low-profile flotation collar (See previous Pop-up).

Camelbak Caution

While stowing equipment in his Hummer just before launch, a radar operator noticed that a plastic clip from his Camelbak water bottle was missing. The clip, which was designed to hold the drinking straw in place, had been attached to the right-shoulder strap.

The radar operator quickly found the clip nearby, and the aircraft launched without further delay.

The Camelbak (August '98 "Pop-ups") is a backpack-style water-carrying device with a long straw in wide use aboard Navy ships, particularly in the Arabian Gulf. Users can drink while keeping their hands free for work.

There are several different styles of Camelbaks. Some have a small straw clip on the shoulder strap; others have a mouthpiece molded onto the straw; or a snap-on mouthpiece. When a mouthpiece or straw clip falls off, it becomes FOD.

Aircrew and mechs who use the Camelbak-brand water bottles should zip-tie the following parts to keep them from becoming FOD:

- Attach the plastic straw clip to the shoulder strap.
- Put a zip-tie around the base of the mouthpiece to hold it onto the straw.

Remember that Camelbaks on the flight deck or in the aircraft can FOD the cockpit or engine.

Ten FODs cost Navy and Marine Corps aviation $216,215, and countless man-hours in FY98.

Edited by LCdr. Mark Enderson. Contributors can contact him at (757) 444-3520 Ext. 7245 (DSN 564). E-mail address: menderso@safecen.navy.mil

First Week—First Emergency

by Ltjg. John Perrone

THE FLEET WAS PROVING TO BE every bit as busy as I had heard it would be. My squadron was bouncing in preparation for a short CQ det. My fourth flight following the FRS was an FCLP sortie from Cecil. I was scheduled to hot seat, but the pilot ahead of me reported that his mission computer wasn't working. We switched while the troubleshooters worked on the problem. Thirty minutes later, after confirming with paddles that my FCLP time was still available, I launched.

My first two touch-and-goes were fine. After liftoff on the third pass, I began to turn downwind at 300 feet AGL. As I reached a 15-degree bank, the flight controls stopped responding. I thought I was in someone's jet wash and tried leveling my wings. A caution tone and "Rudder Off" caution soon followed, and the controls still didn't work.

I was mainly concerned that the unresponsive flight controls would quickly put me out of the ejection envelope. As I reached for the handle, control returned.

I continued climbing and accelerating through 1,000 feet and 170 knots as sporadic cautions (aileron and flaps off) appeared on the left DDI, along with steady cautions for HYD 1A and HYD 1B.

As I leveled off at 1,500 feet, I raised the flaps to half, pulled the left throttle back to idle, and declared an emergency with tower. The flight-control cautions stopped, but the hydraulic cautions remained.

Recalling a similar scenario from a fam hop in the simulator, I checked the hydraulic gauge and saw the HYD 1 needle fluctuating between 500 psi and 2,000 psi.

In the Hornet, fluctuating hydraulic pressure indicates a failing hydraulic pump, which can lead to a fire in the engine bay. After quickly relaying my situation to base, I secured the left engine.

With the left engine shut down and at a safe altitude, I took a deep breath and passed on all the information to tower, paddles and base. Although NATOPS doesn't require it, paddles told me to make a field arrestment, and tower promptly cleared me for the trap on the left runway.

As I maneuvered the aircraft, I recalled from the brief that the arresting gear had been NOTAMed out of battery all week. I asked tower to confirm its status, and they replied it was still down. I told the tower I was going to land on the right runway. The FA-18 flew well single-engine, and I engaged the short-field gear.

Maintenance examined the hydraulic pump. It was obvious the pump had failed and had subsequently contaminated the entire hydraulic system. If I had not secured the left engine, the pump probably would have caused a fire. Furthermore, a faulty check valve allowed the contamination to enter the right engine's hydraulic system, which made both hydraulic systems fail, accounting for the loss of my flight controls.

While this emergency seemed to last an eternity, the real time was only about five minutes. My recent NATOPS training on the dangers of fluctuating hydraulic pressure and flight-control anomalies had paid off.

Ltjg. Perrone flies with VFA-115.

It Do They Th

Throttles to military and four G's later, I bottomed out at 800 feet above the water. Furious, I climbed back to 1,200 feet...

by LCdr. Dan Sad

IT ALL BEGAN ON ONE OF THOSE MOONless nights in the Arabian Gulf. My air wing had been operating in the box for about four weeks, and I was on yet another night CAP. The flight went OK, and I checked into marshal, got my instructions and proceeded to Hornet high-holding at 27,000 feet.

It was the third month of cruise following a compressed turnaround of nine months, which included eight weeks of eye-opening experiences in the North Atlantic and the Norwegian fjords. I had 1,400 total hours, with 300 in the Hornet. I felt comfortable around the ship. I had also learned to calculate my night descent so that I arrived at my push point in time to call, "Established, commencing," without ever bringing the throttles up from the nozzle-puckered idle position that all Hornet students learn in the FRS.

It was the typical CV 1 approach. Passing 5,000 feet, I decreased my descent rate to 2,000 fpm. My radar altimeter's aural-warning bugs were set to 5,000 radar, 1,100 feet baro-altitude, and 400 feet on the "hard" (gauge) warning bug. I reported, "Platform," and was instructed to check in on button 17 for my final-approach controller. I quickly switched and transmitted the obligatory identification and my fuel state. Nothing. I tried again with same result. OK. I switched back to marshal and reported, "No joy on button seventeen."

Marshal told me to try again. I switched back but couldn't get anyone. Instead of switching back to marshal, I decided to try button 15 (the other final-approach frequency) and was immediately and rudely told that I should be on button 17. My first thought, of course, was that I would hear about this one in the ready room. I tried button 17 once more without success. Uncle!

esn't Matter What ink if You're Dead!

I switched back to marshal and requested the frequency for button 17. I couldn't find my comm card, because it had slipped off my kneeboard and fallen beside the seat on the catapult stroke. The ever-helpful marshal controller was more than happy to give me the frequency for CCA final button 17—in base numbers!

No problem. I'd been dealing with this base stuff for a full turnaround and now most of a cruise. I would just write down the numbers, pull out the old reliable card of the day, add them up, carry the one and…

"Altitude, altitude!" Betty screamed.

Throttles to military and four G's later, I bottomed out at 800 feet above the water. Furious, I climbed back to 1,200 feet, switched to button 15 and explained to my controller that I'd shoot my approach on button 15 that night.

My pass wasn't the smoothest ever (a fair to the 3-wire). I quickly bounced out of the wires and moved on to de-arm. As I folded the wings, I realized how close I had come to ending my aviation career. I couldn't taxi the aircraft because my legs were weak. I sat in de-arm for a full minute, shaking while the yellowshirts urged me to get moving.

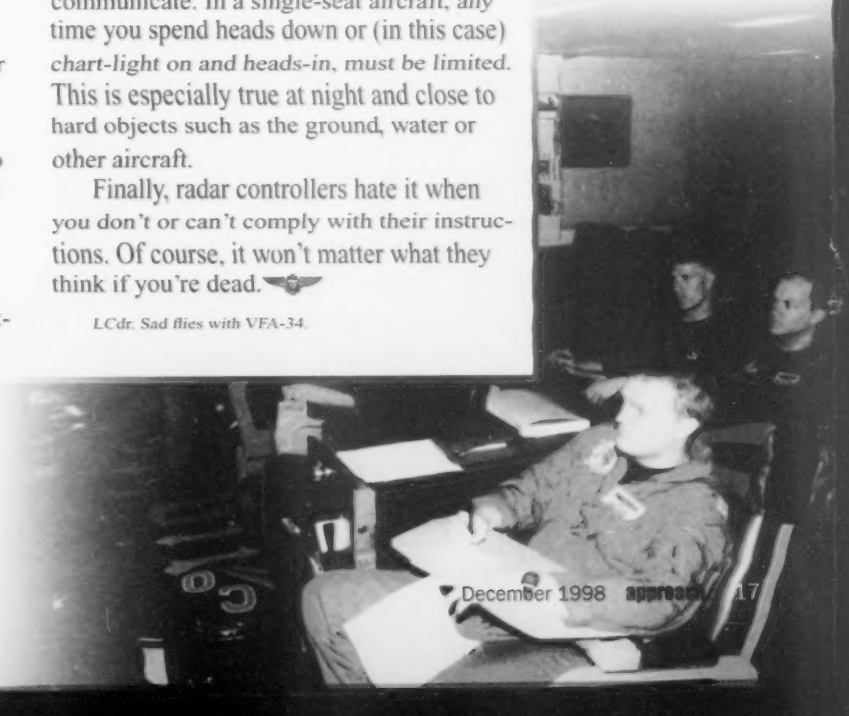
After what seemed like an eternity, I taxied around the bow for about three hours (actually about five minutes). I was never so happy to get back to my ready room. No one even mentioned the frequency mix-up. In fact, the only comments I received were questions about my sudden loss of color. I was as pale as an LSO's turtleneck.

Radar-altimeter settings taught to every tacair naval aviator do save lives. They saved mine. The 1,100-foot baro-altitude warning alerted me to my impending doom. Also, if your aircraft has a new radio and the frequencies seem fine, check them with your comm card; remember, we use different approach frequencies at night.

Platform and the call associated with that transition are reminders to those who forget the prime directive of aviate, navigate, communicate. In a single-seat aircraft, any time you spend heads down or (in this case) chart-light on and heads-in, must be limited. This is especially true at night and close to hard objects such as the ground, water or other aircraft.

Finally, radar controllers hate it when you don't or can't comply with their instructions. Of course, it won't matter what they think if you're dead.

LCdr. Sad flies with VFA-34.



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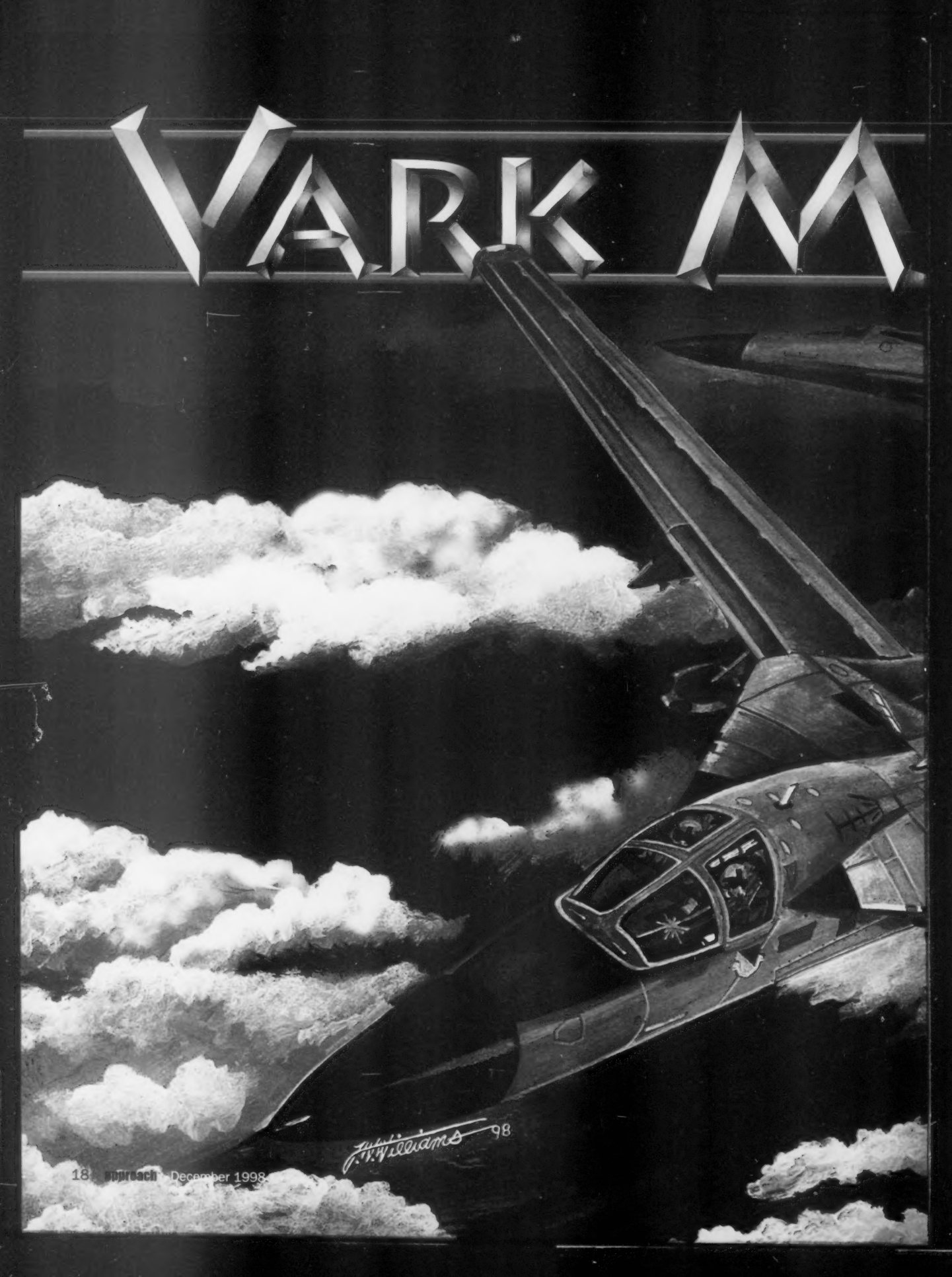


IDAIR

by LCdr. Jeff Kirby

SITTING IN MY LIVING ROOM AT 0400 after an endless medical exam, I finally realized the meaning of what had happened on the previous night. Staying alive was no longer guaranteed. How did the job I love turn into a near-death experience?

It all started as a standard FRS training sortie, with a lot to accomplish to get the X's. I was the Navy exchange WSO going through F-111G transition training to eventually move on to the EF-111A. The hop was a night, section low-level, with pre-mission tanking and a dozen BDU-33s for radar deliveries on the range at the end. A busy flight, but it was my third night-bombing hop, and I'd flown the previous sortie with the same IP.

Arriving early and getting the mission planning done was standard. The brief was uneventful, covering all the training points for the flight. Things started to flex early in the start-up. Vark 2 had maintenance problems right away, but the crew said they'd be able to catch up en route. As Vark 1, we launched as a single and headed for the tanker track. It was my first night rendezvous in the 111, so I would get a chance to use the radar's air-air mode. Rather than a slew stick, the F-111G's radar stick wasn't a stick at all but a device affectionately known as the "goat turd." It was suspended from above, beneath the right canopy rail. The vertical rod went between your middle and ring fingers, with the buttons on the underside of an oval grip—an unusual setup.

As we approached from the trail position on the tanker, I finally got a lock and called the bearing and range to the IP. He called a visual, and I came outside. He repeatedly asked me to call distances as we closed for the rejoin, an unfortunate precursor to later events. Our wingman joined up at the tanker, and we pressed on to the IR route for some 400-foot terrain-following through the mountains, a very

I saw a pair of burner cans filling the windscreen—right down to the orange glow deep inside each one.

different kind of flying for a Prowler guy. We entered the route in a one-minute trail formation and flew about 45 minutes at low level. We transitioned to the bombing mode on the last point inbound to the range. We checked in and dropped a good bomb on the first pass. Dash 2 came across, and we both entered the night pattern, eight miles apart.

Twenty seconds before our second pass, Vark 2 called to report a possible bird strike at the initial. My IP decided to go through dry, and I safed the weapons panel. After a quick pilot-to-pilot discussion, my IP decided to turn the formation downwind. Vark 2 would close on us to do a loose rejoin at 12,000 feet so we could help.

I briefly thought about what we'd be able to see at night after rejoining, but failed to see the harm. We made a 180-degree turn, assuming an eight-mile trail on our wingman and accelerating to catch up—or so we thought. Vark 2 did not turn right away, but continued south for several miles before starting the turn, which put them much closer to us than anticipated.

The wingman also decided to slow to 250 KIAS, since his aircraft might have been damaged. Using the air-air mode, we locked our tacan on them. It showed us gaining. Actually, they were still in the turn, and we were closing at 450 KIAS thinking they were at the pre-briefed rejoin speed of 350 KIAS. I went to work with the radar again to locate Vark 2. This began a fight with the slewing device that started to divert my attention from the rejoin. I never could get good video on the other aircraft, let alone a bearing and range lock. Knowing my IP wanted the info, I kept at it.

Things began to happen incredibly fast. My IP called, "Three miles, visual," based on the tacan, and I glanced out to see position lights in the distance and verified the DME at 3. Then I went back in the boot. My IP asked if I had them yet, and I had to say, "Nope, still working it."

Vark 2 rogered the visual and cleared us to rejoin. As we closed in, I never thought to check our altitude, since we were to close in 1,000 feet below until joined. Unknown to us, Vark 2 had turned off their air-to-air tacan at the visual 3 call. (Later tests showed that the tacan display could hold the last DME readout for up to 19 seconds after losing an air-to-air lock.) We never realized that our closure was more than 180 knots, since their DME read three miles for some time after the "visual" call.

Also, possibly because the sight picture was off for a three-mile view (which was now really one and a half or less), we had climbed unknowingly to just under 12,000 feet.

Frustration with the radar finally won and I gave up, figuring the other jet was close enough that the range wouldn't matter now, anyway. That was an understatement.

I looked over the glareshield and immediately saw wing-tip lights directly ahead. Time compression set in as a dozen thoughts went through my mind in only a few seconds. My first reaction was that we should slow down a bit. I saw a pair of burner cans filling the windscreen—right down to the orange glow deep inside each one.

"Whoa!" I yelled as I ducked to my left. I

thought how stupid it was to die this way.

We heard an intense roar of engine noise for a moment, as our cockpit went beneath their tail, followed by the anticipated sound of the collision. ATC reported our airspeed was about 430 knots at the merge.

After an endless second, I found myself sitting upright, looking in front of the aircraft. My IP was frozen for a moment, and I quickly scanned the instruments. We were higher than we had been. Airspeed had bled down a little, but we were still at about 350. I looked at the IP, who looked back at me, and I asked him if he had control of the aircraft, as I held the capsule-ejection handle. After a quick control check, he said it seemed OK. I relaxed my grip.

"What happened?" he asked.

"I think we just shaved off our tail," I replied.

"Hey, wait, our left wing tip is all messed up," he said, as he looked out to the left. "And the outboard slats are missing."

"What happened to the other guys?" I asked.

The IP called, "Vark Two, say your status!"

Vark 2 came back with, "Roger, we hit something, possibly a tower. Aircraft is sluggish, but flyable."

"Negative, Two, we hit you. Call your posit of homebase."

We were all OK. No fireball. I couldn't believe it, but we had some work to do.

After declaring an emergency to ATC, we called the Air Force supervisor of flying (SOF) in the tower and told him what happened. He injected a moment of humor as he said, "Roger, Vark Flight, rejoin and bring it on back here." We declined his recommendation and set up for emergency approaches. Vark 2 recovered first, then we made a no-flap, no-slat (literally) landing.

The damage was serious, but not nearly as bad as it could (or should) have been. Our aircraft had lost a few feet of left wing and had slat and flap damage. Just before the midair, we had banked right and bunted over slightly, a move that saved us all. Vark 2 had most of its left horizontal stab sliced off and a left-wing bomb rack ripped up. The F-111 has a system called command augmentation, which is a leap beyond simple stab aug. The system compensated for unusual air loads caused by the lost stab to the point that we barely noticed any real variation in flying quality.

What had gone wrong? To start, I had set myself up for a textbook case of channelization before the mishap occurred. If I had not been focused on getting the radar lock when I should have been outside the cockpit monitoring the joinup, I could have called for action well before it was too late.

I could also write another chapter about SA. I felt that my IP had the rendezvous under control (he was "visual," right?), and I had the chance to hone my radar technique. We were both experienced aviators, and we both let our guard down during a routine maneuver. My IP had misjudged the sight picture; he believed that Vark 2 was still at 350 KIAS, and with the air-to-air tacan last reading three miles, he didn't think the distance between our two aircraft could have been closed so quickly. In reality, the distance closed almost twice as fast as expected because the IP's estimate of the closure rate was off by 100 knots.

The lessons we re-learned are not unique to either service. Channelized attention, communications breakdown between aircraft (350 was the pre-briefed rendezvous airspeed), confirmation bias and poor SA conspired to cause this near-fatal mishap.

LCdr. Kirby flew the EF-111A (aka "Sparkvarks") with the USAF's 429th Electronic Combat Squadron. He now flies with VAQ-131.

Diminished
Diminished

I start taking deep breaths, but I don't associate it with hypoxia.

by Lt. David Culpepper

TALK ABOUT A GOOD-DEAL HOP. The Ops O says he'll entertain cross-country requests before the end of the quarter, and he wants us to fly low and fast to maximize training. OK, we can oblige. How about a six-leg, coast-to-coast-to-coast, with two low-levels along the way? Too cool for this guy; I'm fresh out of the FRS. Is this what fleet life is all about?

After a no-fly week preparing for a major squadron inspection, we man up and light the fires. Although my RIO is a senior lieutenant, he is a former BN and was in my FRS class, so we have about the same amount of time in Tomcats. Not wanting to screw it up for the next junior crew who wants to go on the road, we make every effort to stay on top of things, and service the aircraft when required.

The jet gives us a little trouble in Dallas, but with help from the reserve boys at VF-201, we're up and running with a fully serviced Tomcat. That evening we pull into NAS Whidbey after flying an incredible low-level through the Cascade Mountains. We check out our aircraft. Oil looks good. Enough lox to fly the next leg, but we'll have to get someone to service the port hydraulics. The next morning, we call the transient line and they say they're working on locating a HSU to service the hydraulics system. We get a weather brief and file for the next leg.

Anxious to get under way, we walk out to await the maintenance crew. We give a Tomcat fam to a gung-ho Marine crash-and-salvage crew, who are happy to have the training. Fifteen minutes later, the line crew arrives with the HSU and services the hydraulics. We are about 30 minutes behind, not too bad, but we are already going to get in late on the East Coast. Let's hustle.

Air, Flight

Preflight, man up, power on.

"Hey," my RIO says, "did you see that 'oxy low' light before we shut down yesterday?"

"No, we had about four liters before we shut down. Now I'm showing just over three. What do you want to do? We're a little late already."

"I think we'll be OK," he says.

"Concur." Twenty minutes later we're climbing to FL330 for the first of two long legs back home.

I start taking deep breaths, but I don't associate it with hypoxia. My first clue something is amiss comes when my eyesight blurs. At this point, I am more curious than concerned. I can still see, but things aren't as sharp. We are at a cabin altitude of about 13,000 feet, but we are both on the nose hose, with a little less than two liters of lox remaining. I decide to let my RIO in on what I'm thinking and see if he feels anything.

"Hey, how do you feel back there?" This doesn't clarify what is going on, so I say the "H" word, hoping I don't alarm him.

"Do you want to descend?" he replies.

"No, I feel OK." Probably our first mistake, but at this point, I haven't convinced myself that I'm really hypoxic. I hope he might back up what I feel, but he says he is fine. OK, press on.

In the next couple of minutes, it becomes clear to me that I am hypoxic. I began to feel all the same things I remember from the chamber. When my fingers began to tingle, I am concerned.

I tell my RIO, and he immediately declares an emergency. The controller is talking to another aircraft so he doesn't hear us. The tingling begins working its way up my arm, which scares me, so I push the nose over before we tell center. My RIO gets the message, and I feel the symptoms getting more severe. I look down at the emergency-oxygen activation ring, comforting myself that it will be there if I need it. Then it hits me that I am gambling on remaining conscious long

enough to reach a decent cabin altitude. If I'm wrong, my RIO will shell us out of a perfectly good Tomcat in the middle of nowhere. The thought of waking up in the silk does not appeal to me at all. I pull the green ring.

The thought of waking up in the silk does not appeal to me at all. I pull the green ring.

Center is very helpful, offering the closest divert and field information. We level off at FL230, which is a cabin altitude close to 8,000 feet, so we both remove our masks. At this point, all symptoms have vanished, so we decide to continue to our destination at FL230. We tell center everything is OK now and thank them for their help. Maybe not the best call to continue on at this point, but I can't see the value in diverting.

This event occurred about an hour and a half into a three-hour flight. We had taken off with three liters of oxygen and had half that left. By my math at the time we should be golden. Just enough to get us there so we could have the lox serviced for the final leg. I had good air flow the whole time, so what went wrong?

First, NATOPS says two things about an "oxy low" caution light in the F-14. It means that either the lox quantity is low, less than two liters, or system pressure is below limits. We had more than two liters on the gauge, so system pressure must have been below limits.

Second, the quantity sensor is very sensitive. Based on how it is installed, it can be off as much as two liters. We could have had less lox than we thought, and that difference might have caused the under-pressure.

Since we had good lox flow throughout the entire flight, my first thought was contamination. This was later ruled out because we had used the same bottle on the previous leg without incident. A lox bottle is either 100-percent contaminated, or it isn't contaminated at all. The only significant thing found on postflight was a loose supply fitting on the bottle, which was probably why so much lox leaked out overnight.

NATOPS also says to turn off the normal oxygen before activating the emergency oxygen. This action will isolate the aircrew from the normal system that is supplying presumably bad air. Flipping that switch did not occur to me until long after the symptoms of hypoxia had disappeared. Since the normal oxygen was not contaminated, as I initially thought, it merely augmented the emergency source.

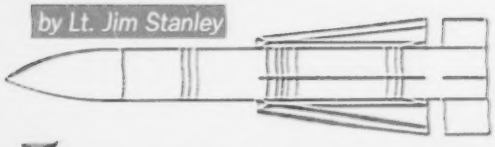
My RIO did not feel any symptoms because of how the system is designed. The lox bottle supplies air to the cockpit through one line, which is routed to the RIO first and then to the pilot. Partial pressure of gasses and all that chem stuff was never my strong suit, but I think this means the RIO was hogging all my oxygen.

At least two decisions contributed to this potential mishap. First, we launched on a high-altitude flight with far less than a full bottle of lox, despite our planned flight level. Second, I was slow to accept the fact that I had hypoxia and, even then, I delayed pulling the emergency-oxygen bottle's ring. I equated pulling that green ring with admitting I had made a significant mistake and would have to tell someone.

Lt. Culpepper flies with VF-14.

A Hard-Won Fox 3

by Lt. Jim Stanley



I was excited about my first Phoenix missile shoot. My RIO, who had already shot a Phoenix, was even going to let me pull the trigger.

I'd only been in the squadron for six months, and we were most of the way through work-ups for the upcoming summer Med cruise.

Our final preparation was an exercise flight during which we would practice the profiles we would fly the next day. During one of the maneuvers, while we were pulling a few G's, the master-caution light blinked, but when I looked down at the caution-advisory panel, the light was gone. I thought it was the bingo light, since the fuel quantity was near my bingo setting on the fuel gauge. I re-adjusted the bug and the light went out.

We soon completed our profiles, and I joined on lead for the short flight back to Oceana. Winds were out of the north, so the duty runway was 32. Before I knew it, we were 10 miles out for the overhead.

When I thumbed the wings back for the break, I felt an extra thump. I glanced down at the gauges and, to my surprise, saw that the combined-hydraulics needle was bouncing up and down as the wings moved those last 20 degrees back. Then, the needle stopped.

I didn't recall ever seeing that when I'd put the wings back before, but then, I didn't usually look at the gauge, either.

I tightened up my parade position in preparation for the break. Suddenly, I started to feel something unusual in the stick. I started talking to my RIO.

"Hey," I called, "the combined-hydraulic needle was bouncing up and down when I put the wings back, and now I've got some strange feedback in the stick."

"Do you have a hydraulic-caution light?" he asked.

"No," I said, then added, "So that's what that was!" thinking out loud.

"What was that?" asked my RIO, with a little edge to his voice now.

I quickly explained the momentary master-caution light I'd had while maneuvering, and that it must have been tied to a hydraulic caution light. Even now, however, there was no hydraulic-caution light. Suddenly, the stick felt normal.

"Feels OK now," I said.

Then the odd feeling returned. I started to throttle back a little, thinking about taking separation from the lead and slowing down to troubleshoot. The thumping sound returned, with the same strange feedback in the stick. The combined-hydraulic needle started bouncing again. However, if I was very smooth with the control stick, the hydraulic pressure stopped bouncing.

By now, it was obvious we had some kind of hydraulic problem. The runway was right ahead of us, and we were minutes from touchdown. My RIO suggested I stick with the lead, go into the overhead, and land as soon as possible. I concurred, and as I tightened up my loose position, I could see the lead RIO looking back at us, wondering what was going on.

The lead broke over the numbers and I followed, immediately pulling power to idle and thumbing out the speedbrakes. As I pulled in the turn, the stick feedback got so bad that the pitch-and-roll SA switches kicked off, and the caution-advisory panel lit up. I eased the pull and floated the turn, telling my RIO I was struggling.

As I rolled out on downwind for runway 32 left, I reset the SA switches, hit the master-reset button, and lowered the gear. The gear came down slowly. I continued downwind to set up for a modified straight-in, with approximately a mile-and-a-half on final. The RIO made the calls to tower, then he and I agreed to hold the flaps until we were wings level. I started the turn to final and lowered the flaps with about 20 degrees to go.

At this point, with the stick feedback getting worse and the hydraulic pressure jumping around, I thought about lowering the tailhook. However, as I looked out at the landing area, I could see that the short-field gear was de-rigged on the left runway. I glanced over at the right runway and saw the short-field gear was in battery, but there was another aircraft abeam of us on final to land on 32 right. There was no way I could sidestep to the right. I left the hook up. If I needed to take the long-field gear, I would lower it on the rollout.

I would probably not have any brakes or nosewheel steering, but I could keep the jet tracking down the runway well enough with the rudders alone.

I finally got the landing checks out of the way and concentrated on flying a safe pass. I added a little too much power in close, went flat, and touched down on top of where the short-field gear should have been.

Immediately, the nose came down, hard enough that my head was thrown forward. I thought I had touched down on the wire, but there was no wire on the runway. I was a little left of centerline so I made a small rudder correction to the right that developed into a right drift. I made a small rudder correction back to the left, and that turned into a left drift. I tried a little right rudder to correct again, but nothing happened.

As I held full, right rudder, I checked the hydraulic gauge; the combined hydraulic needle was at zero. At the same time, tower called that our mainmount was on fire!

I could only watch, horrified, as we headed for the left side of the runway. My short Navy career flashed before my eyes. I had read many *Approach* articles about jets departing the runway, but I couldn't believe that it was going to happen to me. I started to wonder if I should eject, but at that moment, my RIO called over the ICS, "Stay with it, stay with it."

We slid off the runway, nearly hitting the 4-board. As soon as the left mainmount hit the grass, it plowed in, initially pulling us to the left until the right mainmount hit the grass and straightened us out. We came to a stop within 15 feet of leaving the runway, and the dirt over the mainmounts put out the fires we had going on both tires. In fact, both tires were knocked completely off their wheels.

I shut down both engines, and we quickly scrambled out to look over the jet. We had sunk halfway down the mainmounts, and soon, the jet was resting on the drop tanks. The crash crew showed up quickly and pinned the gear and our million-dollar Phoenix. It was undamaged.

I stared at the Tomcat, trying to figure out how I'd gotten into this predicament.

I never used the brakes on touchdown, so how did the wheels catch fire, and why did we skid off the runway? I looked at the tires that were sitting several feet away from the mainmounts. One part was worn through, from tread down to rim, while the rest of the tire looked completely normal. I remembered how quickly the nose had fallen through when we touched down. We must have been skidding as soon as we touched down. The wheelbrakes locked as soon as they hit the runway and, sure enough, there was a 2,500-foot trail of two solid-black skid marks from our touchdown until we skidded off the runway.

It took all night to get the plane out of the dirt; the only available crane had to be driven over from NAS Norfolk. When maintenance got the jet back, they found only minor damage to the drop tanks (where they scraped the pavement as the jet went off the runway) and some broken hydraulic lines on the mainmounts. The maintenance guys fixed the hydraulic lines, replaced the wheels, and proceeded with a drop check of the gear. Amazingly, when they cycled the gear back down, they found that the main-gear wheelbrakes were completely locked up!

Moving along the hydraulic lines, they discovered a clogged hydraulic filter that kept the hydraulic fluid in the wheelbrakes, thus depriving the rest of the system of fluid. The clogged filter had caused the hydraulic fluctuations, unusual stick feedback, and loss of all the other combined-hydraulic-powered systems. At no time did any fluid leak out of the system. A spoiler actuator that had recently failed and been replaced likely clogged the filter.

I learned several valuable lessons that day. First, although the hydraulic caution light never came on, as soon as I saw fluctuations in the hydraulic-pressure needle I should have treated that as an emergency. If I had slowed down and made a straight-in while declaring an emergency, I could have had a clear field, and been able to easily line up on the right runway for the short-field gear. Now I treat all hydraulic-pressure fluctuations as a serious problem and land as soon as possible.

Second, I could have secured the engines before going off the runway to avoid FOD.

Lastly, I needed to communicate more with the RIO. Once we had landed, he told me he didn't hear a peep from me, and all the while he was staring at the mid-field radar shack with which we seemed about to collide. That's why he called for me to "stay with it." I was looking ahead at the 4-board, which is what I thought we were about to hit.

As for the missile shoot? My benevolent skipper let us proceed, and I finally got my hard-won Fox-3.

Lt. Stanley flies with VF-14.

Two Runways, No Waiting continued from pg. 11.

However I noticed something strange. It told me we were heading 120 degrees, not 170 degrees. As soon as I realized this, we got the call from tower. "Quail Four Five, understand you were cleared for departure on runway Seventeen Right?" We all looked at each other, then realized what we had done. After a quick CYA reply by the instructor, tower said they had an aircraft taxiing across runway 12, and the pilot had to hit the brakes while crossing to keep from colliding with our plane.

We were so intent on getting back to home base on time that we had missed the fact that I had lined up the aircraft on runway 12, not 17R. We all saw the lights of the crossing aircraft but did not realize what they were. What was so pressing that we had to get back to home base on time? In retrospect, nothing. We had convinced ourselves that getting back quickly was more important than flying the plane carefully. All three of us had missed the most basic pre-departure rule of checking the compass heading against runway heading. Had we allowed the landing traffic to make a full stop and taken a "breather," we would have certainly realized that we had lined up on the wrong runway. The tower controller had more situational awareness than we did, and this incident was only that, an incident.

Lt. Rodriguez flies with VQ-4.

BROWNSHOES IN ACTION COMIX

"The kind real aviators like"

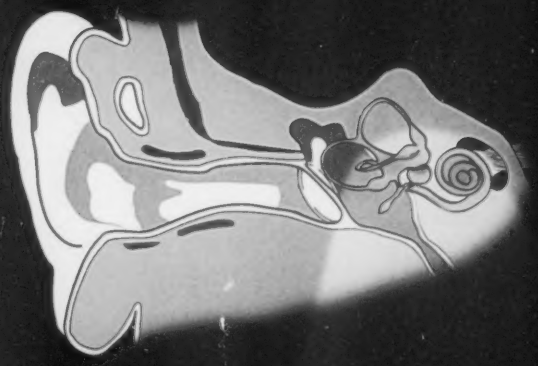
From 1988 to 1993, our readers enjoyed one of the most offbeat, refreshing examples of home-grown aviator humor in "Brownshoes in Action." Created and drawn by *Approach* editor, then-Lt. Ward Carroll, an F-14 RIO with a uniquely slanted view of his profession and life in general, "BSIA" was truly "the kind of comics real aviators like." We had many imitators, but none ever approached (pun intended) the original. Now-Cdr. Carroll has taken up his pen once again and promises to keep 'em coming. So, for you more senior types, here's Dangerboy once more. And for you newer guys and gals, enjoy! We will also occasionally run some of Ward's original strips. There is a serious side to this, you know. As Mickey's master has written, "A spoonful of sugar makes the medicine go down."

Ops O, are you telling me Dangerboy is the only pilot available for this VIP flight?
Well, with the Det gone and folks at schools I don't have anybody else, Skipper...
It's a pleasure to meet you, Senator. Wow, what a year on the Hill, eh? I don't remember seeing your name in the headlines. That must've been like "chaff and flares" city as we say in the fighter business...
PR SHOP
FAM SQUEEZE
...I'll go ahead and click your mask on so you won't have to fool with it. There we go, nice and tight. Now where is that darned O_2 switch back here?
MMPHH! MMPHH!
Normally we start these fam flights with mild maneuvering, but I won't insult you with that. You strike me as a man ready for the edge of the—whoops!... OK, stick forward, neutral lateral...
WOOOSH!
ZING!
...and that was actually a little more negative G than we're supposed to do. Still back there, Senator? I lost you in my mirrors here. Oh hey! How 'bout going cold mike when you do that?
Dangerboy, any idea why the two-star at OLA wants to talk to me?
The Fighting Pits

by Cdr. Ward Carroll

Hear Ye! Hear Ye!

Holiday Spirits May Linger in Your Inner Ear



Alcohol displaces part of the fluid in the inner ear, making the tiny hair cells hypersensitive to any movement. It can take 24-48 hours for the alcohol in your inner ear to dissipate, despite a 0.0 BAC. If you're not sure of your ability to fly safely on the morning after, sit down and put your head between your knees. Rapidly sit up. If you get dizzy or feel sick, you might still have alcohol on board, buried within your inner ear. Remember how it feels to spin and decide whether to take that chance in the cockpit.

Alcohol displaces inner ear fluid making tiny hair cells hypersensitive to any movement, almost as though they were sunburned.

Visit our Homepage:
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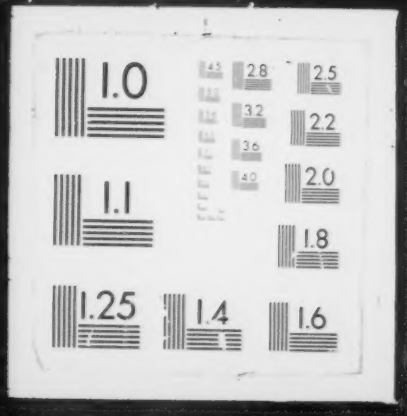
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